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MarketLine Industry Profile

Chemicals in the United States

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MarketLine

EXECUTIVE SUMMARY

Market value

The United States chemicals market grew by 5.8% in 2010 to reach a value of \$670 billion.

Market value forecast

In 2015, the United States chemicals market is forecast to have a value of \$934 billion, an increase of 39.4% since 2010.

Category segmentation

Base chemicals is the largest segment of the chemicals market in the United States, accounting for 33.2% of the market's total value.

Geography segmentation

The United States accounts for 20% of the global chemicals market value.

Market rivalry

The chemicals market has been greatly affected by the global economic downturn, however, the prompt recovery and optimistic view for future market's growth should mitigate the rivalry level somewhat.

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MARKET OVERVIEW

Market definition

The chemicals market consists of base, consumer, pharmaceutical, specialty and fine chemicals. Market values are taken at producer selling price (PSP). Any currency conversions used in the creation of this report have been calculated using constant 2010 annual average exchange rates.

For the purposes of this report, the Americas consists of North America and South America.

North America consists of Canada, Mexico, and the United States.

South America comprises Argentina, Brazil, Chile, Colombia, and Venezuela.

Market analysis

The US chemicals market grew posting gradually decelerating growth rates, culminating in a steep decline in 2009. The market recovered this year and is expected to display healthy growth over the next five years up to 2015.

The US chemicals market had total revenue of \$670 billion in 2010, representing a compound annual growth rate (CAGR) of 0.1% for the period spanning 2006-2010. In comparison, the European and Asia-Pacific markets grew with CAGRs of 0.9% and 9.9% respectively, over the same period, to reach respective values of \$820.5 billion and \$1,559.5 billion in 2010.

The base chemicals segment was the market's most lucrative in 2010, with total revenue of \$222.2 billion, equivalent to 33.2% of the market's overall value. The pharmaceuticals segment contributed revenue of \$210.1 billion in 2010, equating to 31.4% of the market's aggregate value.

The performance of the market is forecast to accelerate, with an anticipated CAGR of 6.9% for the five-year period 2010-2015, which is expected to drive the market to a value of \$934 billion by the end of 2015. Comparatively, the European and Asia-Pacific markets will grow with CAGRs of 3.8% and 10.5% respectively, over the same period, to reach respective values of \$987.9 billion and \$2,566.2 billion in 2015.

MARKET DATA

Market value

The United States chemicals market grew by 5.8% in 2010 to reach a value of \$670 billion.

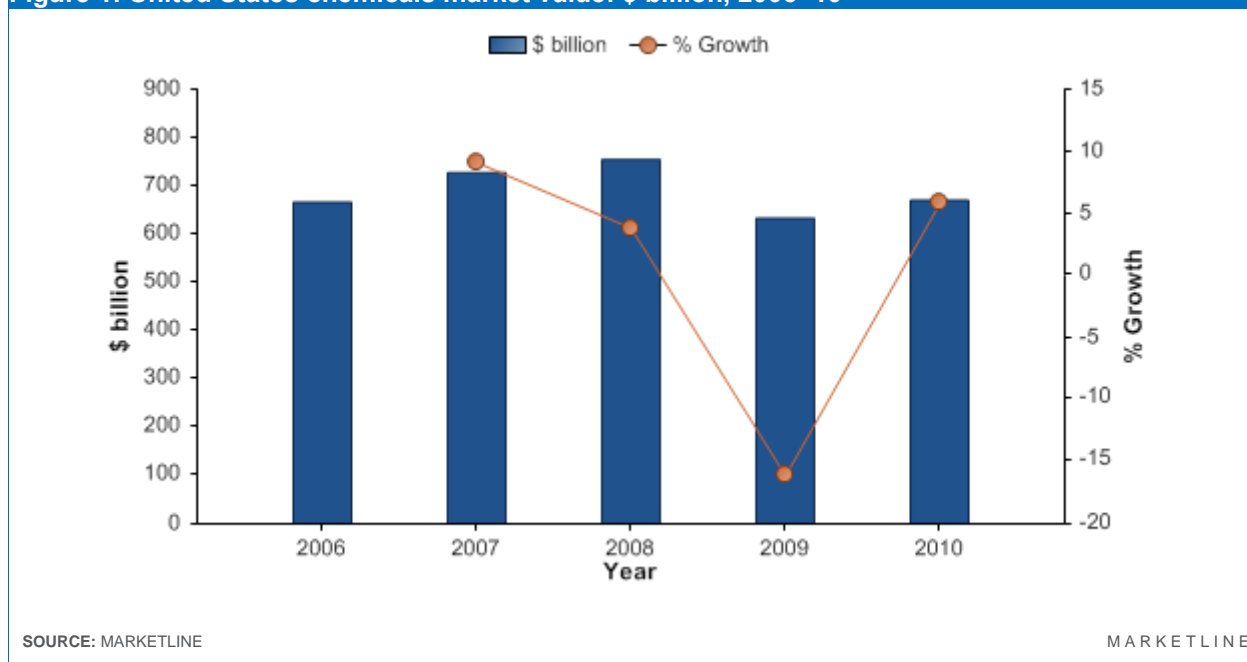
The compound annual growth rate of the market in the period 2006–10 was 0.1%.

Table 1: United States chemicals market value: \$ billion, 2006–10

Year	\$ billion	€ billion	% Growth
2006	666.3	501.8	
2007	727.0	547.5	9.1%
2008	754.8	568.4	3.8%
2009	633.2	476.8	(16.1%)
2010	670.0	504.5	5.8%
CAGR: 2006–10			0.1%

SOURCE: MARKETLINE MARKETLINE

Figure 1: United States chemicals market value: \$ billion, 2006–10



MARKET SEGMENTATION

Category segmentation

Base chemicals is the largest segment of the chemicals market in the United States, accounting for 33.2% of the market's total value.

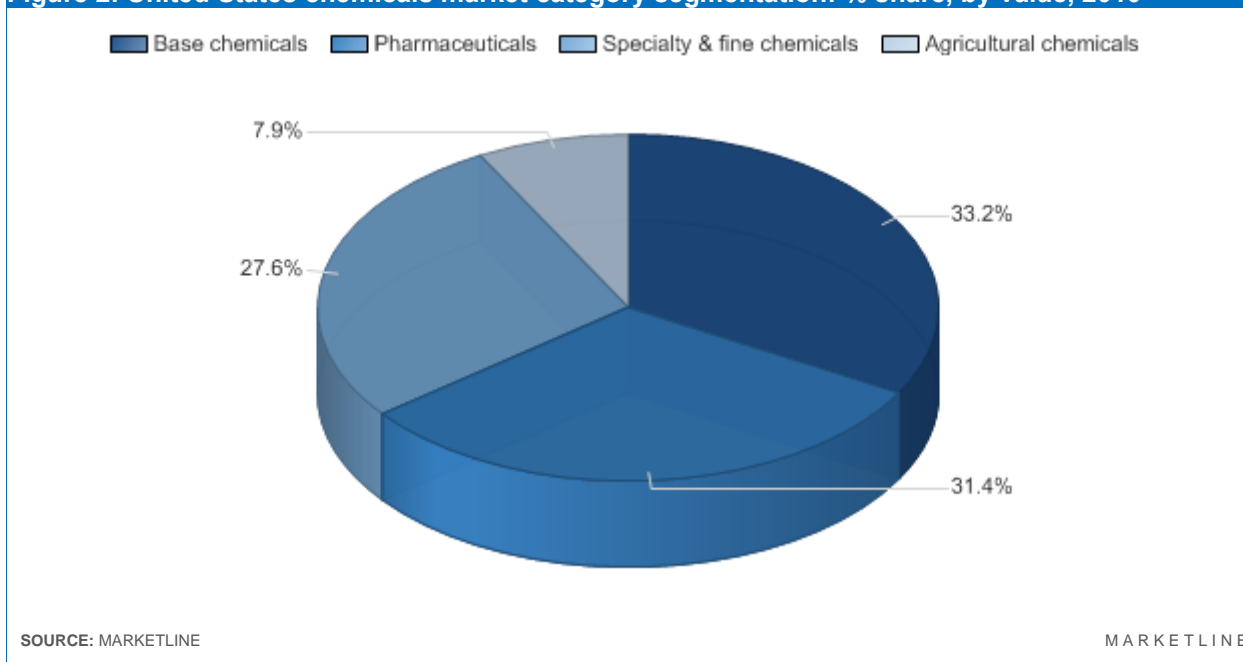
The Pharmaceuticals segment accounts for a further 31.4% of the market.

Table 2: United States chemicals market category segmentation: \$ billion, 2010

Category	2010	%
Base chemicals	222.2	33.2%
Pharmaceuticals	210.1	31.4%
Specialty & fine chemicals	184.6	27.6%
Agricultural chemicals	53.1	7.9%
Total	670	100%

SOURCE: MARKETLINE MARKETLINE

Figure 2: United States chemicals market category segmentation: % share, by value, 2010



Geography segmentation

The United States accounts for 20% of the global chemicals market value.

Asia-Pacific accounts for a further 46.5% of the global market.

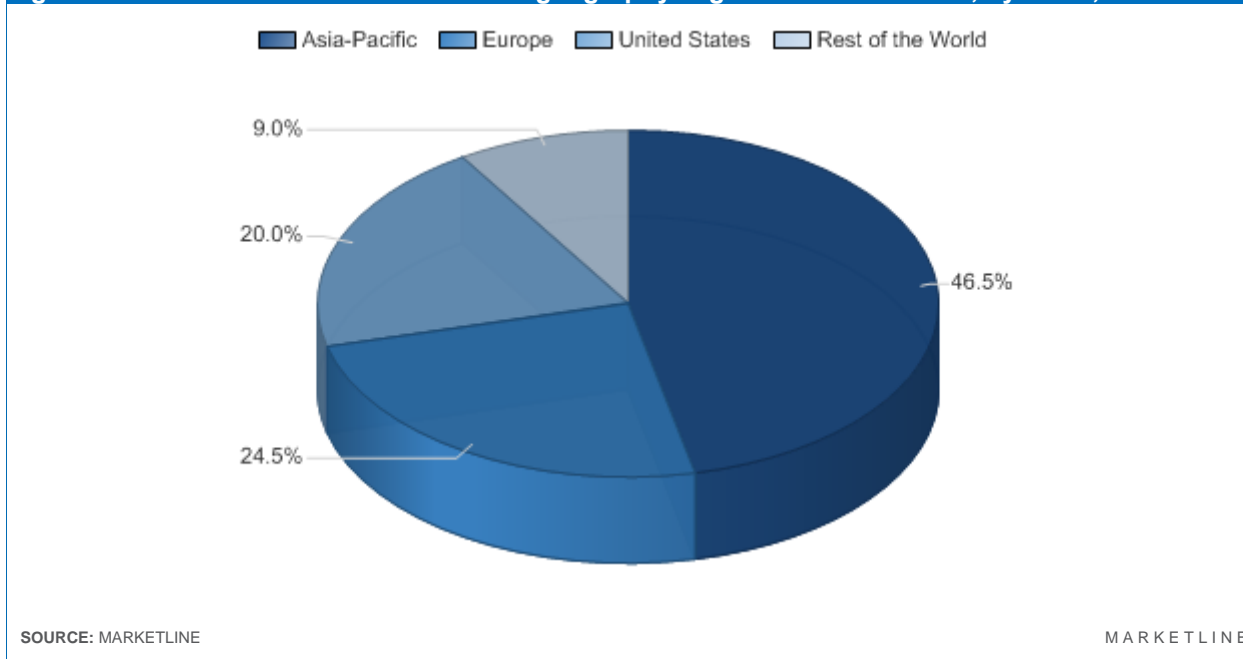
Table 3: United States chemicals market geography segmentation: \$ billion, 2010

Geography	2010	%
Asia-Pacific	1,559.5	46.5
Europe	820.5	24.5
United States	670.0	20.0
Rest of the World	300.8	9.0
Total	3,350.8	100%

SOURCE: MARKETLINE

MARKETLINE

Figure 3: United States chemicals market geography segmentation: % share, by value, 2010



SOURCE: MARKETLINE

MARKETLINE

MARKET OUTLOOK

Market value forecast

In 2015, the United States chemicals market is forecast to have a value of \$934 billion, an increase of 39.4% since 2010.

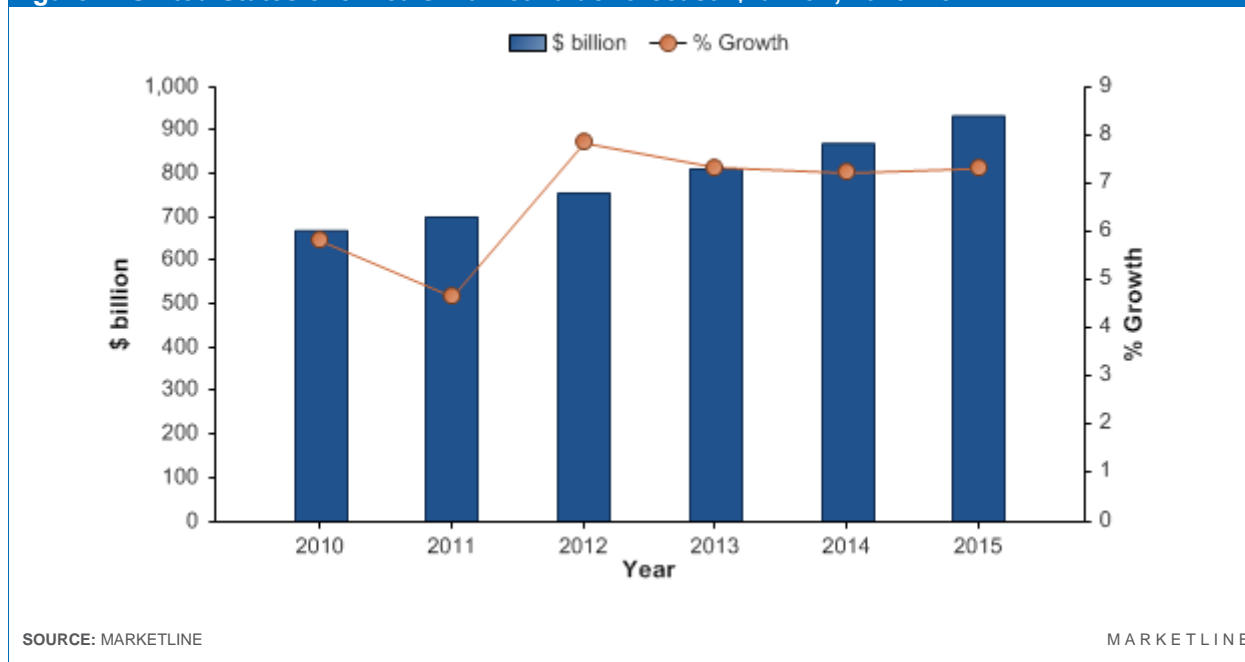
The compound annual growth rate of the market in the period 2010–15 is predicted to be 6.9%.

Table 4: United States chemicals market value forecast: \$ billion, 2010–15

Year	\$ billion	€ billion	% Growth
2010	670.0	504.5	5.8%
2011	701.2	528.0	4.7%
2012	756.2	569.5	7.8%
2013	811.7	611.2	7.3%
2014	870.3	655.4	7.2%
2015	934.0	703.4	7.3%
CAGR: 2010–15			6.9%

SOURCE: MARKETLINE MARKETLINE

Figure 4: United States chemicals market value forecast: \$ billion, 2010–15

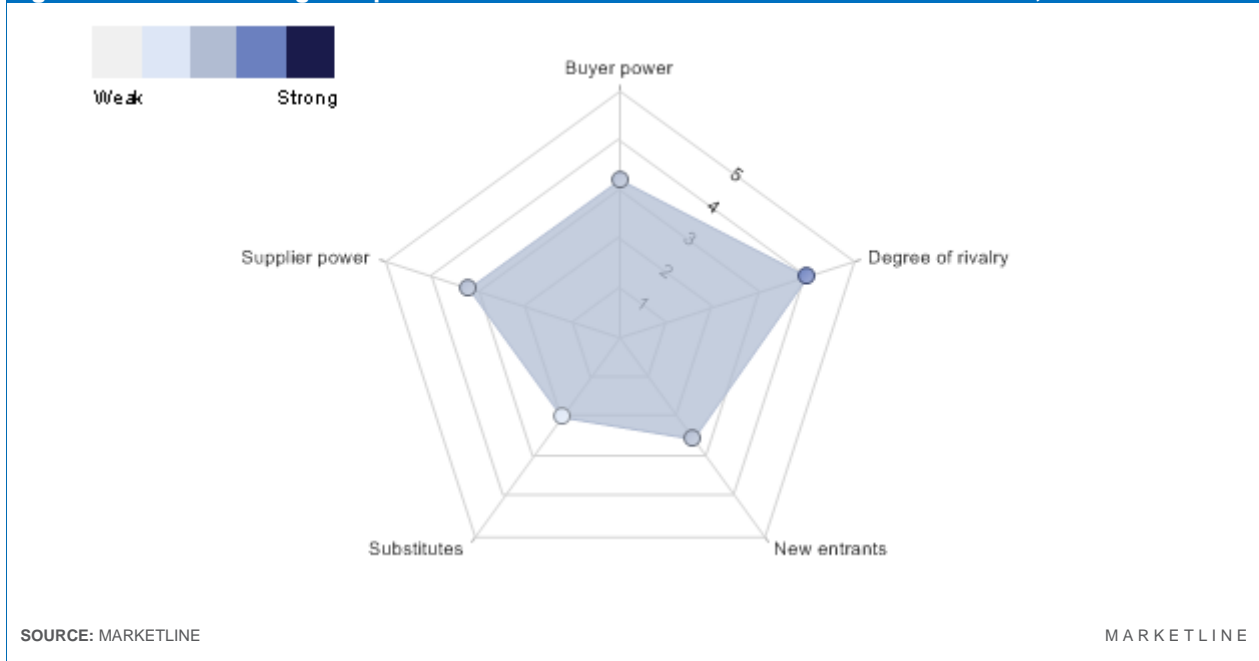


FIVE FORCES ANALYSIS

The chemicals market will be analyzed taking players as players. The key buyers will be taken as buyers, and suppliers as the key suppliers.

Summary

Figure 5: Forces driving competition in the chemicals market in the United States, 2010

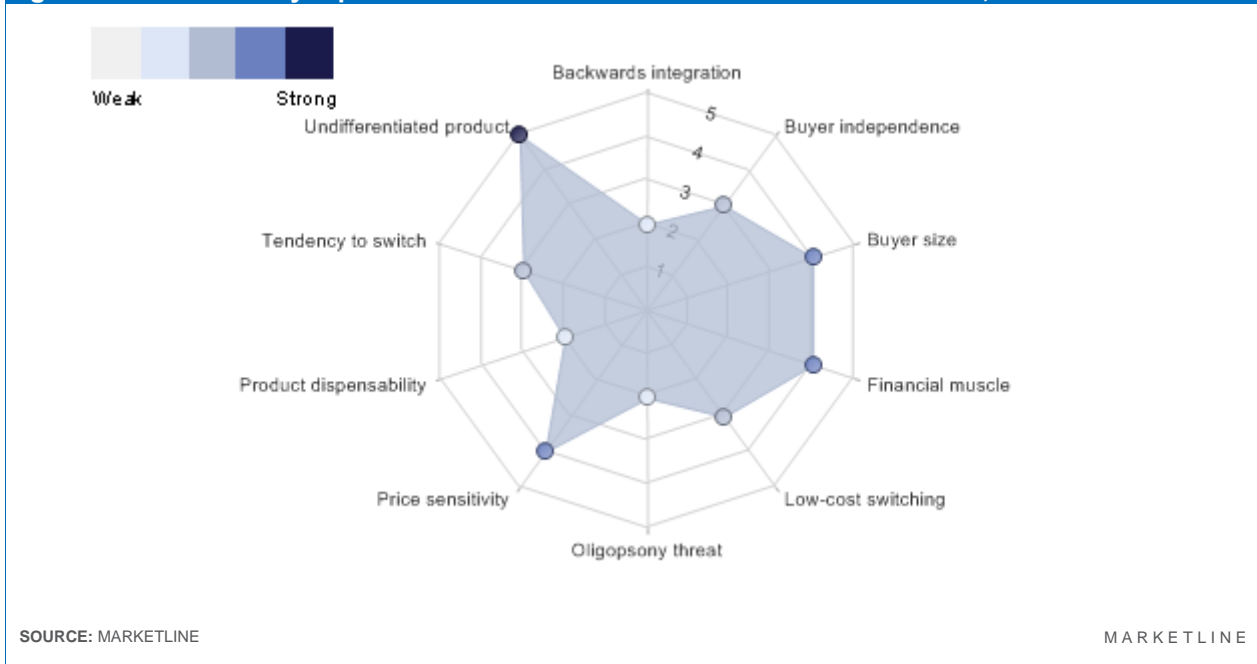


The chemicals market has been greatly affected by the global economic downturn, however, the prompt recovery and optimistic view for future market's growth should mitigate the rivalry level somewhat.

The US chemicals market is one of the world's largest in terms of revenue, and one of the most diverse in terms of products offered. Its performance is very much affected by national and international economic situations, especially by the prices and demand - supply relation of petrol and gas sector. In this market, buyer power is strengthened by the fact, that customers can obtain the same raw materials needed from several market players and are price-sensitive. However, it is possible, that there is no substitute for certain commodity chemical, which means, the choice of sources is limited, thus weakening buyer power. Vertical integration is common in this market, although not as popular as when it comes to commodity chemicals. Companies in the extractive industries add value to their raw materials by converting them into chemicals. Entry to the market requires large amounts of capital to set up high volume production plants and benefit from scale economies; small scale entry is unlikely to be successful. Rivalry is fairly high among market players, as companies are on the whole selling undifferentiated products, where branding is of little significance. The threat of substitutes in this market is very weak, as buyers generally need products of a particular chemical composition, unobtainable anywhere else.

Buyer power

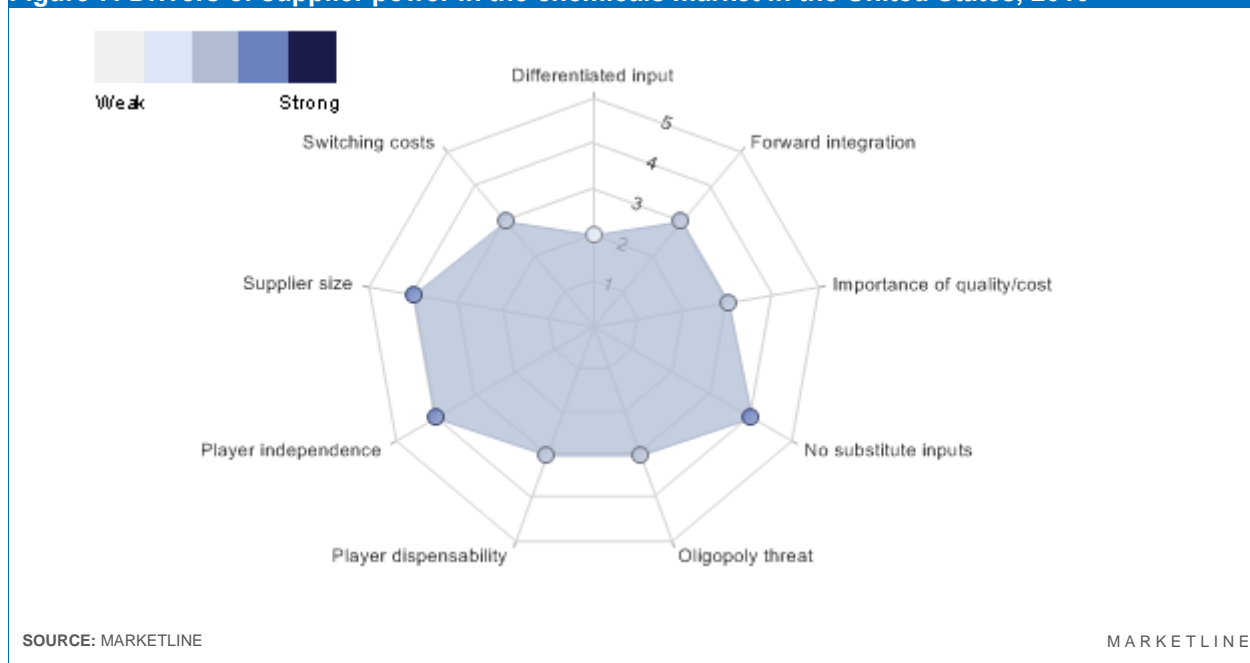
Figure 6: Drivers of buyer power in the chemicals market in the United States, 2010



The products in question include base (inorganic and organic) and specialty chemicals, pharmaceutical materials and chemicals used in agriculture. Therefore buyers include manufacturers of plastic products, water utilities and consumer chemical manufacturers amongst many others. These all tend to be medium- to large businesses, with weak negotiating positions relative to very large market players, such as BASF, LyondellBasell and Bayer. This weakens buyer power. Base chemicals are undifferentiated commodities, specified only by chemical composition and purity; and branding is of negligible importance. This strengthens buyers' power, as they can obtain the same materials from several market players. On the other hand, as base and specialty chemicals include a wide variety of substances, the number of potential buyers is quite high, especially for the large base chemical players that typically operate in several sub-markets. Base chemicals are generally highly significant to the business of the buyers, and as a result, are often supplied through long-term contracts, with periodic renewal and/or price renegotiation. Another type of goods in this market are specialty chemicals, which are relatively high value chemicals, with diverse end product markets. They are usually characterized by their innovative aspects and sold for what they can do rather than for their composition. Because of their versatility, they add to buyer power, as the final product can be sold much easier or can be transformed into a number of other products. Switching costs include those incurred by waiting for the end of a contractual period while losing out during that time on a better deal offered by another player. It may be possible to break a contract early, but this would likely incur a charge. Overall, buyer power is moderate.

Supplier power

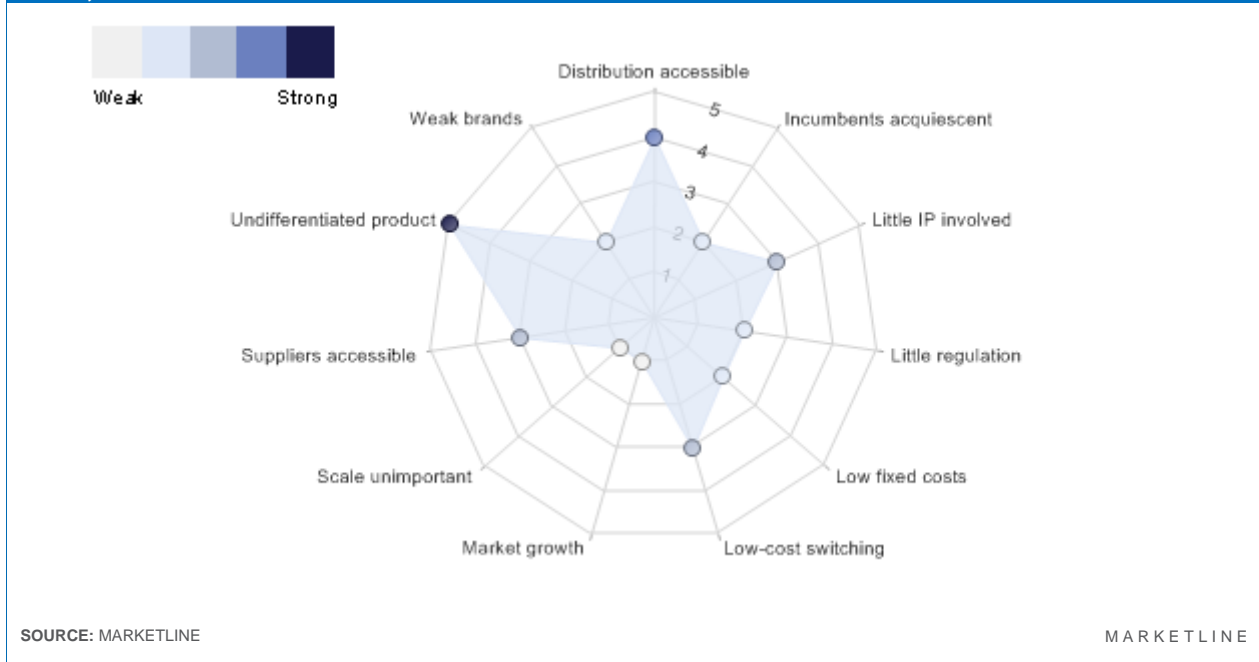
Figure 7: Drivers of supplier power in the chemicals market in the United States, 2010



The ingredients used in chemical industry are mostly derived from oil or natural gas; not only for organic (carbon-containing) end-products, but also for certain inorganics: ammonia, for example, is manufactured from natural gas. Supplier power is increased by the fact, that the main oil and gas companies are large, and there are only a small number of them, supplying to all kinds of different buyers from a large range of industries. Moreover, supplier power has been strengthened by the fact, that major chemical manufacturers, particularly in the US and Europe, have recently been faced with rising raw material prices and reluctant customers. As a result, these companies tend to enter into stronger partnerships with their suppliers to ensure that they remain profitable. One example of this is BASF's cooperation with Gazprom for field development in Siberia. Forward integration by suppliers can be fairly common, for example, oil and gas companies are often producers of petrochemicals, as well as suppliers to base chemical manufacturers. This increases supplier power relative to chemical producers that do not own their own upstream resources. Supplier power is weakened by the fact that raw materials are not highly differentiated. Oil and gas companies are essentially offering the same raw materials. By buying raw materials in the open market, chemicals manufacturers have little control over the price, and may need hedging strategies, in order to minimize the impact of price volatility. For other chemicals, minerals and sea water are among the most important inputs. For example, sodium chloride can be formed by evaporating sea water or obtained from halite mines; it is then used in the production of sodium carbonate, sodium hydroxide, chlorine, etc. Sulphur, a key starting material for base chemicals, such as sulfuric acid, is obtained by mining. The present economic situation has caused many chemical manufacturers to cut back production, and the consequent decreasing demand for raw materials may weaken suppliers by affecting the prices they can obtain. Overall, supplier power is assessed as moderate.

New entrants

Figure 8: Factors influencing the likelihood of new entrants in the chemicals market in the United States, 2010



Chemicals do have some uses in their own right - for example, some base chemicals may be used as household cleaners, such as sodium hydroxide or ammonia, but more commonly they are used as raw materials for the manufacture of more valuable products. As a result, they are produced in bulk, and scale economies are highly important if the available margins are to be worthwhile. Entering the chemicals market requires large amounts of capital to set up high-volume production plants. The capital intensity, and the importance of scale economies, restricts market entry to medium-sized and large companies. Furthermore, the presence of very strong, multinational incumbents provides a further obstacle to entering this market. While many of the processes used to manufacture chemicals were originally developed in the early twentieth century and are in the public domain, incumbents often own significant IP assets and non-patented in-house expertise, which allow them to enhance their production processes. New players may find it difficult to replicate this knowledge. Particularly for a large-scale market entry, access to suppliers can be problematic. Because of the volume of raw materials used, it is preferable to locate near to their sources. Moreover, the US, like most countries, has a host of legislation and regulatory authorities to monitor the chemical industry. For example, the Toxic Substances Control Act (TSCA) regulates the introduction and use of new or already existing chemicals. The statute grants the Environmental Protection Agency (EPA) the authority to require chemical manufacturers to conduct toxicity tests on any substances already on the market and control chemicals that pose a risk to health or the environment. This includes banning the production or use of chemicals. Regulatory compliance increases costs and so raises entry barriers for new players. On the other hand, factors favoring market entry include the fact that chemicals, within the respective segments, are usually undifferentiated commodities: a new player can make products indistinguishable from those of the incumbents, which means that provided they are not tied into contracts with existing suppliers, buyers are just as likely to opt for the new player if presented with cheaper option. On balance, there is a weak likelihood of new entrants.

Threat of substitutes

Figure 9: Factors influencing the threat of substitutes in the chemicals market in the United States, 2010



Chemicals are fundamental to a wide variety of downstream businesses; there are no substitutes for these products, considered collectively. Furthermore, buyers generally need products of a particular chemical composition. In situations where a buyer can choose between different but related chemicals, it is likely that the same market players manufacture them all. Overall, the threat of substitutes is weak.

Degree of rivalry

Figure 10: Drivers of degree of rivalry in the chemicals market in the United States, 2010



A fairly large number of medium-to-large companies, including some powerful multinationals, are active in the chemicals market. As manufacturers of chemicals market fairly commoditized products, it is often difficult for players to offer strong incentives for their customers not to switch to rival companies. The business is characterized by high fixed costs. Furthermore, the need to invest heavily in large scale production plants while entering the market translates into high exit costs. These factors all boost rivalry. Rivalry is eased during periods of rapid market expansion, but intensified when - as during the global recession - revenue growth slows or actually goes into decline. Rivalry remains strong when all of the factors are considered.

LEADING COMPANIES

Chevron Phillips Chemical Company LLC

Table 5: Chevron Phillips Chemical Company LLC: key facts

Head office:	10001 Six Pines Drive, The Woodlands, Texas 77380, USA
Telephone:	1 832 813 4100
Website:	www.cpchem.com
Financial year-end:	December
SOURCE: COMPANY WEBSITE	
MARKETLINE	

Chevron Phillips Chemical Company (Chevron Phillips Chemical) is engaged in the petrochemical business. The company is a producer of olefins and polyolefins and a supplier of aromatics, alpha olefins, styrenics, specialty chemicals, piping, and proprietary plastics. Chevron Phillips Chemical operates 36 production facilities located in the US, Singapore, China, South Korea, Saudi Arabia, Qatar, Colombia, Brazil and Belgium. Chevron Phillips Chemical Company LP is the wholly owned subsidiary of the company.

The company's product offerings are divided into two business units: olefins and polyolefins; and specialties, aromatics and styrenics.

Chevron Phillips Chemical's olefins and polyolefins business unit offers ethylene, polyethylene, normal alpha olefins, polyalpha olefins, propylene, polypropylene, and high-density polyethylene pipe, conduit and pipe fittings.

Specialties, aromatics and styrenics business unit of the company offers cyclohexane, paraxylene, styrene, polystyrene, benzene, k-resin styrene-butadiene copolymers (SBC), mercaptans, mining chemicals, soltex drilling mud additive, ryton polyphenylene sulfide (PPS), x-tel PPS, tracktek racing fuels and specialty organosulfur compounds.

Chevron Phillips Chemical has four research, technology and quality control centers worldwide. These facilities provide petrochemical and polymer research including new catalyst development, product and process development, and commercial process support.

The company, through all its products, serves the market by providing: adhesives and sealants; agricultural, appliances, automotive, building and construction; chemical manufacturing, dry cleaning, electronics, healthcare and medical; household, imaging and photography; industrial, oil, gas, and mining, packaging, paint and coatings; personal care and cosmetics, pharmaceuticals, plastics and rubber; and textiles.

Key Metrics

The company recorded revenues of \$11,204 million in the fiscal year ending December 2010, an increase of 33.3% compared to fiscal 2009. Its net income was \$1,388 million in fiscal 2010, compared to a net income of \$615 million in the preceding year.

Table 6: Chevron Phillips Chemical Company LLC: key financials (\$)

\$ million	2006	2007	2008	2009	2010
Revenues	12,330.0	12,986.0	12,646.0	8,406.0	11,204.0
Net income (loss)	1,349.0	719.0	276.0	615.0	1,388.0
Total assets	7,119.0	7,232.0	6,676.0	7,418.0	8,016.0
Total liabilities	2,881.0	3,072.0	2,530.0	2,734.0	3,162.0
Employees	0	0	0	0	0

SOURCE: COMPANY FILINGS MARKETLINE

Table 7: Chevron Phillips Chemical Company LLC: key financial ratios

Ratio	2006	2007	2008	2009	2010
Profit margin	10.9%	5.5%	2.2%	7.3%	12.4%
Revenue growth	11.7%	5.3%	(2.6%)	(33.5%)	33.3%
Asset growth	2.3%	1.6%	(7.7%)	11.1%	8.1%
Liabilities growth	(1.7%)	6.6%	(17.6%)	8.1%	15.7%
Debt/asset ratio	40.5%	42.5%	37.9%	36.9%	39.4%
Return on assets	19.2%	10.0%	4.0%	8.7%	18.0%

SOURCE: COMPANY FILINGS MARKETLINE

Figure 11: Chevron Phillips Chemical Company LLC: revenues & profitability

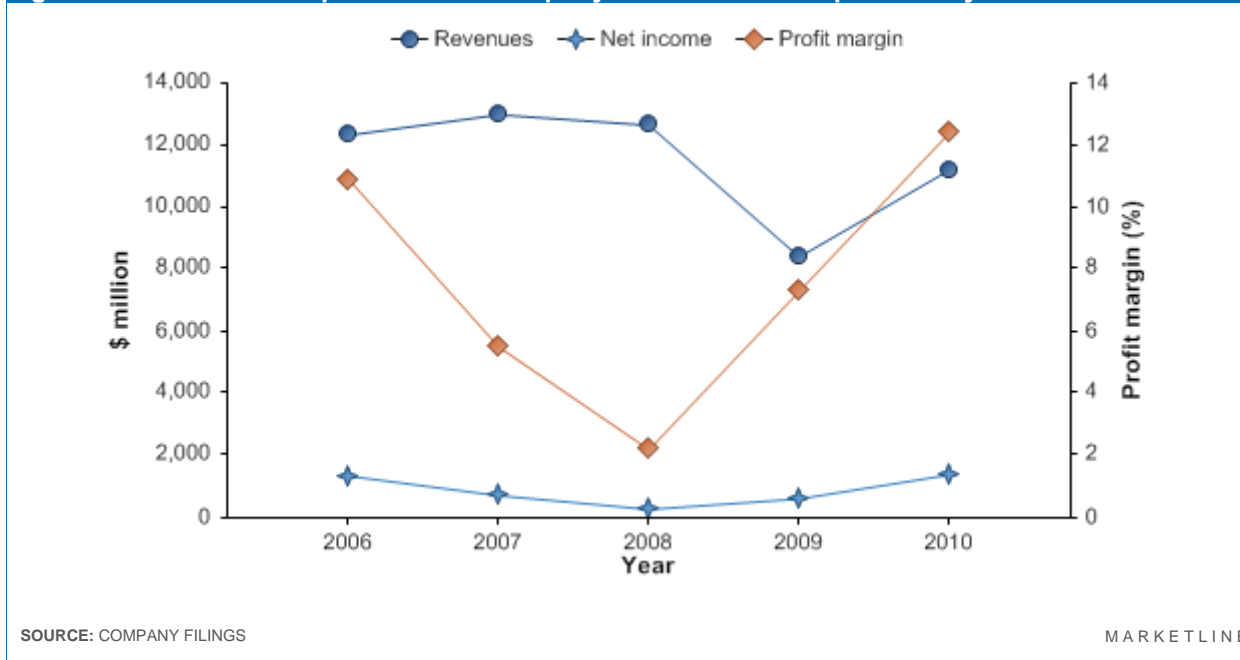
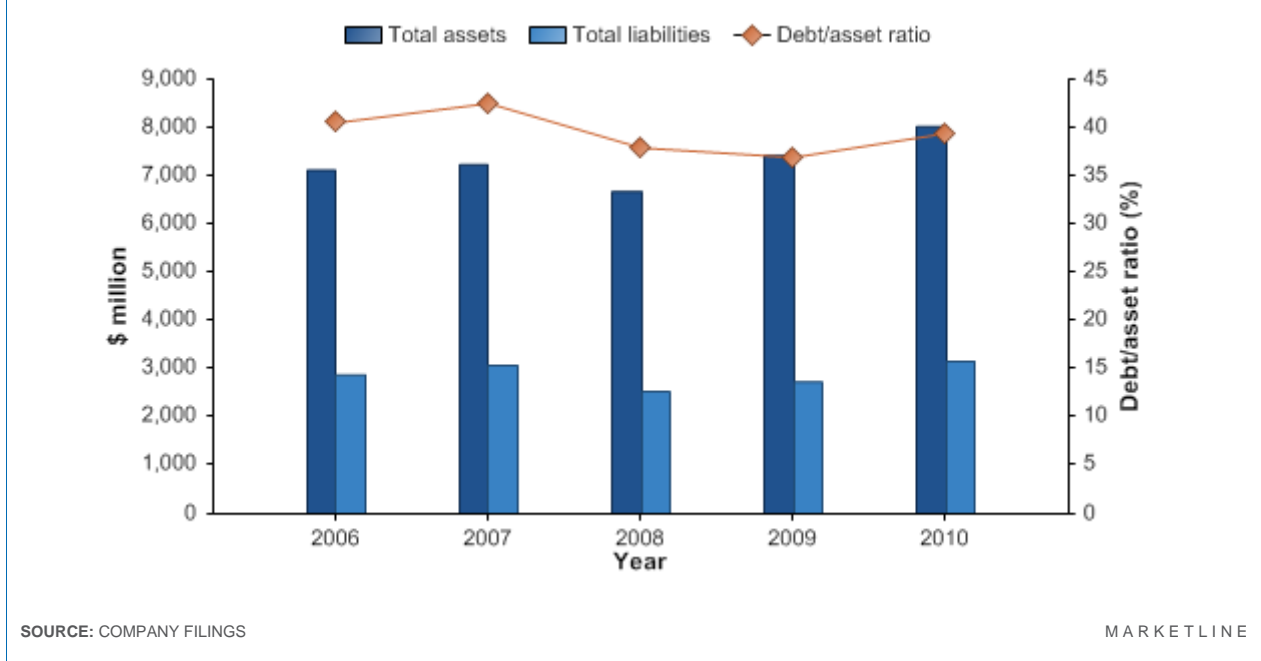


Figure 12: Chevron Phillips Chemical Company LLC: assets & liabilities



The Dow Chemical Company

Table 8: The Dow Chemical Company: key facts

Head office:	2030 Dow Center, Midland, Michigan 48674, USA
Telephone:	1 989 636 1000
Website:	www.dow.com
Financial year-end:	December
Ticker:	DOW
Stock exchange:	New York
SOURCE: COMPANY WEBSITE	
MARKETLINE	

The Dow Chemical Company (Dow) is a diversified chemical company offering a range of chemicals, plastics, and agricultural products and services. It serves customers in approximately 160 countries providing them with fresh water, food, pharmaceuticals, paints, packaging, and personal care products. The company operates over 214 manufacturing sites in 37 countries and supplies more than 5,000 products. The company operates in North America, Europe, Asia Pacific, and Latin America.

Dow operates through eight segments: electronic and specialty materials; coatings and infrastructure; health and agricultural sciences; performance systems; performance products; basic plastics; basic chemicals; and hydrocarbons and energy. It is also engaged in the property and casualty insurance and reinsurance business through its Liana subsidiaries.

The electronic materials segment supplies materials for chemical mechanical planarization, materials used in the production of electronic displays, products and technologies that drive leading edge semiconductor design, materials used in the fabrication of printed circuit boards, and integrated metallization processes. The specialty materials consist of a portfolio of businesses which provide chemicals, functional ingredients, and technological services to the pharmaceuticals, food, home and personal care, water and energy production, and industrial specialty industries. Specialty materials consists of five global businesses, Dow water and process solutions, Dow home and personal care, Dow microbial control, Dow Wolff cellulosic, and performance materials.

The products manufactured by this segment have applications in chemical mechanical planarization (CMP) pads and slurries, chemical processing and intermediate, electronic displays, food and pharmaceutical processing and ingredients, printed circuit board materials, semiconductor packaging, connectors and industrial finishing, and water purification.

The coatings and infrastructure segment operates through Dow coating materials and Dow building and construction.

Dow coating materials is the largest coatings supplier of raw materials for architectural paints and industrial coatings. In addition, it offers technologies used in industrial coatings, including packaging, pipelines, wood, automotive, marine, maintenance, protective industries, and conversion of solvent to water based technologies.

Dow building and construction consists of two global businesses, Dow building solutions and Dow construction chemicals. Through these two businesses the company offers insulation, housewrap, sealant, and adhesive products and systems, as well as construction chemical solutions.

The products manufactured by this segment have applications in building and construction, insulation and weatherization, roofing membrane systems, and adhesives and sealants.

The company's health and agricultural sciences segment, through Dow Agro-Sciences, develops, manufactures, and markets products for the following functions: crop protection; weed, insect, and plant disease management; and industrial and commercial pest management. Dow Agro-Sciences is currently in the process of building a plant genetics and biotechnology business in agricultural seeds, traits, healthy oils, and animal health. Further, the segment, through its AgroFresh business, provides products for maintaining the freshness of fruits, vegetables, and flowers. The products produced by this segment have applications in controlling of weeds, insects, and plant diseases for agriculture and pest management.

The performance segment operates a number of businesses including: Dow automotive, Dow elastomers, and Dow wire and cable.

Dow automotive provides technology-driven solutions and is a supplier of plastics, adhesives, glass bonding systems, emissions control technology, films, fluids, structural enhancement, and acoustical management solutions to original equipment manufacturers (OEMs), tire, aftermarket, and commercial transportation customers.

Dow elastomers offer elastomers, specialty films, and plastic additive products for customers worldwide. The business offers a broad range of performance elastomers and plastomers, specialty copolymers, synthetic rubber, specialty resins, and films and plastic additives.

Dow wire and cable provides polymers, additives, and specialty oil technology based solutions for electrical and telecommunication applications. In addition to providing power, telecommunications, and flame retardant and specialty cable applications, the business supports its product offerings with research, product development, engineering, and market validation expertise.

The performance systems segment also includes Dow Fiber Solutions, which provides differentiated fibers and process improvements to the textile industry, and Dow Oil and Gas which provides products for use in exploration and production, refining and gas processing, transportation, and fuel and lubricant performance.

The products produced by this segment have applications in automotive interiors, exteriors, under the hood and body engineered systems, bedding, caps and closures, food and specialty packaging, footwear, furniture, gaskets and sealing components, manufactured housing and modular construction, medical equipment, mining, pipe treatment, pressure sensitive adhesives, transportation, vinyl exteriors, waterproofing membranes, and wire and cable insulation and jacketing materials for power utility and telecommunications.

The performance products segment comprises of the following businesses: amines; emulsion polymers; epoxy; oxygenated solvents; performance fluids, polyglycols, and surfactants; performance monomers, and polyurethanes.

The amines business produces ethanolamines, ethyleneamines, and isopropanolamines for treating gas, heavy duty liquid detergents, and herbicide formulations for the agricultural industry and personal care products. The emulsion polymers business provides a broad line of styrene butadiene products supporting customers in paper and paperboard applications and carpet and artificial turf backings. The epoxy business produces epoxy resins and intermediates. The oxygenated solvents business offers acetone derivatives, alcohols, esters, and ethylene and propylene based glycol ether products. The business products are used in cleaning products, inks, electronics, mining, paints and coatings, personal care, and other applications.

The performance fluids, polyglycols, and surfactants business supplies polyglycols and surfactants, with a broad range of products and technology. The business also produces lubricants, hydraulic fluids, aircraft deicing fluids, and thermal fluids. The product applications include chemical processing, cleaning, heating, cooling, food and beverage processing, fuel additives, paints and coatings, pharmaceuticals, and silicone surfactants. The performance monomers business is involved in the production of specialty monomer products used in downstream polymer businesses. The business' products are used in several applications, including cleaning materials, personal care products, paints, coatings, and inks. The polyurethanes business provides polyurethane raw materials. Dow's polyurethane products are used for a broad range of applications including athletic equipment, automotive, bedding, construction, decorative molding, furniture, and shoe soles.

The performance products segment also includes Dow Haltermann, a provider of contract manufacturing services to companies in the fine and specialty chemicals and polymers industries, and SAFECHEM, a wholly-owned subsidiary that manufactures closed loop systems to manage the risks associated with chlorinated solvents.

The basic plastics segment operates through three businesses: polyethylene, polypropylene, and the styrenics business. The polyethylene business supplies polyethylene-based solutions and resins through a global network of local experts. The polypropylene business provides a broad range of products and solutions tailored to customer needs. The styrenics business is a global producer of polystyrene resins.

The products produced by the basic plastics businesses have applications in: adhesives; appliances and appliance housings; agricultural films; automotive parts and trim; beverage bottles; bins, crates, pails, and pallets; building and construction; coatings; consumer and durable goods; consumer electronics; disposable diaper liners; fibers and non-wovens; films, bags, and packaging for food and consumer products; hoses and tubing; household and industrial bottles; housewares; hygiene and medical films; industrial and consumer films and foams; information technology; oil tanks and road equipment; plastic pipe; textiles ; toys, playground equipment, and recreational products; and wire and cable compounds.

The basic chemicals segment operates through two businesses: chlor alkali/chlor vinyl business and ethylene oxide/ethylene glycol businesses.

The chlor alkali/chlor vinyl business is a producer of chlorine used for consumption by downstream Dow derivatives business and also includes production, marketing, and supply of ethylene dichloride, vinyl chloride monomer, and caustic soda.

The ethylene oxide/ethylene glycol business is a supplier of ethylene glycol to MEGlobal, a 50/50 joint venture involved in the manufacture and marketing of merchant monoethylene glycol and diethylene glycol. Dow also supplies ethylene oxide to internal derivatives businesses. Ethylene glycol is used in polyester fiber, polyethylene terephthalate (PET) for food and beverage container applications, polyester film, and antifreeze.

The products produced by these businesses have applications in: agricultural products; alumina; automotive antifreeze and coolant systems; carpet and textiles; chemical processing; dry cleaning; household cleaners and plastic products; inks; metal cleaning; packaging, food, and beverage containers paints, coatings and adhesives; personal care products; petroleum refining; pharmaceuticals; plastic pipe; protective packaging; pulp and paper manufacturing; soaps and detergents; and water treatment.

Dow's hydrocarbons and energy segment includes the procurement of fuels, natural gas liquids, and crude oil-based raw materials, as well as the supply of monomers, power, and steam principally for use in Dow's global operations. The business also sells products to certain Dow joint ventures.

The company's unallocated and other businesses include the results of new ventures (which include new business incubation platforms focused on identifying and pursuing new commercial opportunities), venture capital, the company's insurance operations and environmental operations, and certain overhead and other cost recovery variances not allocated to the operating segments.

Key Metrics

The company recorded revenues of \$53,674 million in the fiscal year ending December 2010, an increase of 19.6% compared to fiscal 2009. Its net income was \$1,970 million in fiscal 2010, compared to a net income of \$336 million in the preceding year.

Table 9: The Dow Chemical Company: key financials (\$)

\$ million	2006	2007	2008	2009	2010
Revenues	49,124.0	53,513.0	57,514.0	44,875.0	53,674.0
Net income (loss)	3,724.0	2,887.0	579.0	336.0	1,970.0
Total assets	45,581.0	48,801.0	45,474.0	65,937.0	69,588.0
Total liabilities	28,516.0	29,104.0	31,463.0	44,116.0	26,341.0
Employees	42,600	45,900	46,102	52,200	49,500

SOURCE: COMPANY FILINGS MARKETLINE

Table 10: The Dow Chemical Company: key financial ratios

Ratio	2006	2007	2008	2009	2010
Profit margin	7.6%	5.4%	1.0%	0.7%	3.7%
Revenue growth	6.1%	8.9%	7.5%	(22.0%)	19.6%
Asset growth	(0.8%)	7.1%	(6.8%)	45.0%	5.5%
Liabilities growth	(6.8%)	2.1%	8.1%	40.2%	(40.3%)
Debt/asset ratio	62.6%	59.6%	69.2%	66.9%	37.9%
Return on assets	8.1%	6.1%	1.2%	0.6%	2.9%
Revenue per employee	\$1,153,146	\$1,165,861	\$1,247,538	\$859,674	\$1,084,323
Profit per employee	\$87,418	\$62,898	\$12,559	\$6,437	\$39,798

SOURCE: COMPANY FILINGS MARKETLINE

Figure 13: The Dow Chemical Company: revenues & profitability

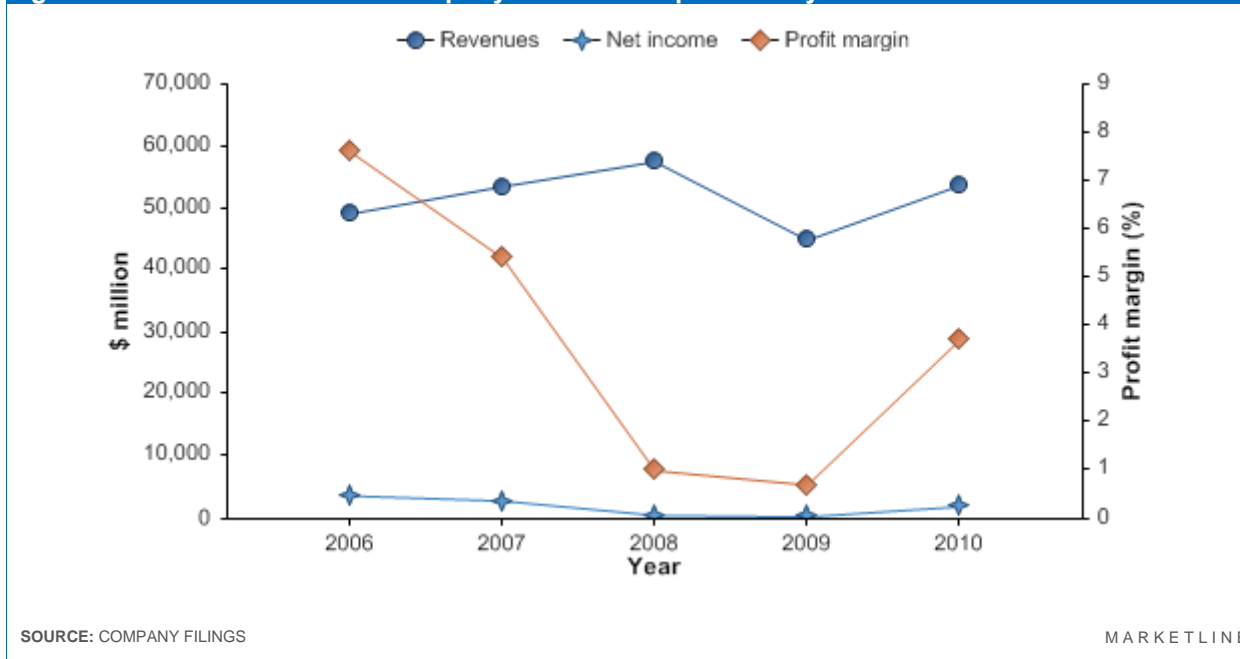
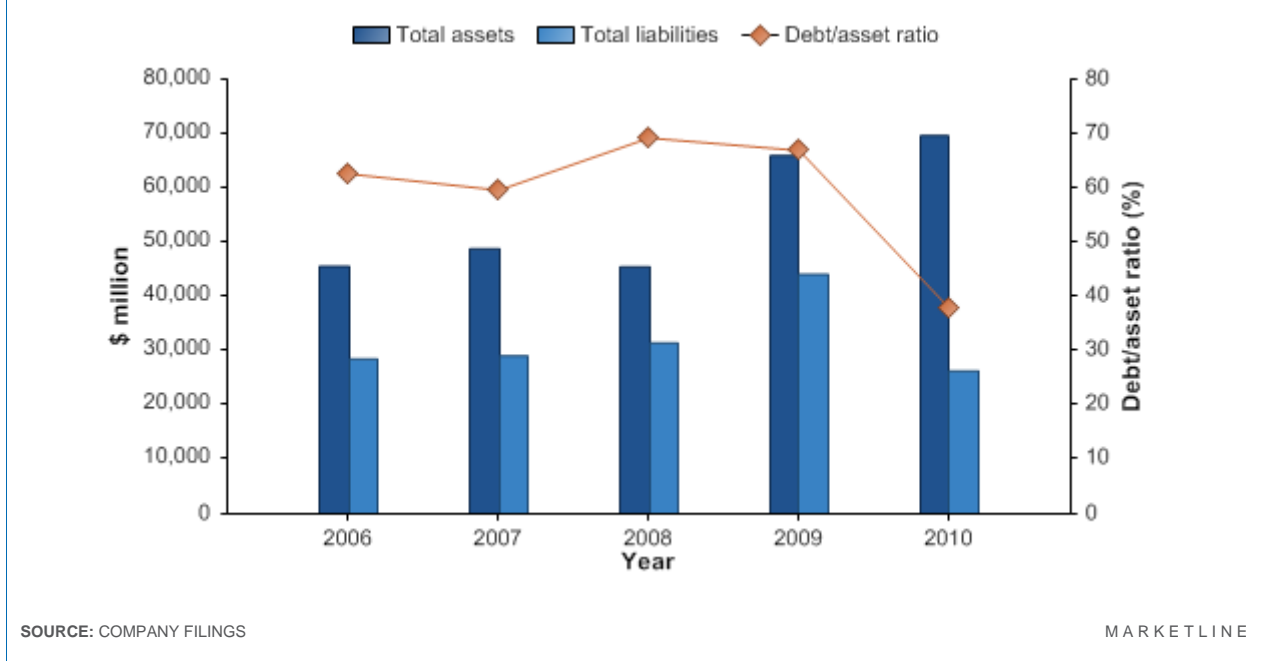


Figure 14: The Dow Chemical Company: assets & liabilities



E. I. duPont de Nemours & Company

Table 11: E. I. duPont de Nemours & Company: key facts

Head office:	1007 Market Street, Wilmington, Delaware 19898, USA
Telephone:	1 302 774 1000
Fax:	1 302 773 2631
Website:	www2.dupont.com
Financial year-end:	December
Ticker:	DD
Stock exchange:	New York
SOURCE: COMPANY WEBSITE	
MARKETLINE	

E.I. du Pont de Nemours and Company (DuPont) is a science and technology company, operating across a diverse range of disciplines, including agriculture and industrial biotechnology, chemistry, biology, materials science, and manufacturing. The company operates globally and offers a wide range of products and services for markets including agriculture and food, building and construction, electronics and communications, general industrial, and transportation.

The company has operations in approximately 80 countries worldwide. Through its subsidiaries and affiliates DuPont conducts manufacturing, seed production, sales activities and product distribution (of those manufactured by the company).

DuPont operates through seven business segments: agriculture and nutrition; electronics and communications; performance chemicals; performance coatings; performance materials; safety and protection; and pharmaceuticals.

The agriculture and nutrition segment offers products and services to improve crop yields and productivity. The segment operates through the company's wholly-owned subsidiary, Pioneer, which has seed production facilities throughout the world and primarily produces hybrid seed corn and soybean seed. The segment also provides crop protection products in the grain and specialty crop sectors, forestry, and vegetation management. The products include Pioneer and other brands of seeds, insecticides, fungicides, herbicides, insect control products, and plant growth regulators.

The segment's operations also include the production and distribution of soy-based food ingredients, food quality diagnostic testing equipment and services, and liquid food packaging systems. This segment also serves the specialty food ingredients market, including soy proteins and lecithins through its majority-owned venture with Bunge, The Solae Company.

The electronic and communication segment provides materials and systems for alternative energy, electronics, flat panel displays, and advanced printing. The company is a leading supplier of conductors and fluoropolymer films for crystalline silicon cell and module manufacturers. The company, through its subsidiary DuPont Apollo, produces thin film photovoltaic modules. The segment is also investing in its portfolio of materials for semiconductor fabrication and packaging, as well as its portfolio of materials for circuit applications, to address needs of semiconductor and electronics manufacturers.

The performance chemicals segment provides customized solutions with a wide range of industrial and specialty chemical products for markets including plastics and coatings, textiles, mining, pulp and paper, water treatment, and healthcare. The segment, through its DuPont Titanium Technologies business, manufactures titanium dioxide for the coatings, paper, plastics, specialties and minerals markets. It provides a broad line of DuPont Ti-Pure titanium dioxide products, and Starblast abrasives.

The segment also manufactures industrial and specialty fluorochemicals, fluoropolymers, and performance chemicals through its DuPont Chemicals and Fluoroproducts business. The business' products include refrigerants, lubricants, propellants, solvents, fire extinguishants, and electronic gases. The major brands owned by this segment are DuPont Teflon, Dymel, Isceon, Suva, Vertrel, Zyron, Vazo, and Virkon.

The performance coatings segment is a supplier of motor vehicle coatings with products including high performance liquid and powder coatings for motor vehicle original equipment manufacturers (OEMs), the motor vehicle after-market, and general industrial applications, such as coatings for heavy equipment, pipes, and appliances and electrical insulation. The major brands owned by this segment are DuPont Standox, Spies Hecker, and Nason.

The performance materials segment offers polymer-based high performance materials in its product portfolio, including thermoplastic and thermoset engineering polymers and elastomers which are used by customers to fabricate components for mechanical, chemical, and electrical systems. The segment also offers specialized resins and films used in packaging and industrial applications, sealants and adhesives, sporting goods, and inter-layers for laminated safety glass.

The major brands owned by this segment are DuPont Zytel nylon resins, Delrin acetal resins, Hytrel polyester thermoplastic elastomer resins, Vespel parts and shapes, Tynex filaments, Surlyn resins, Vamac ethylene acrylic elastomer, SentryGlas Plus and Butacite laminate interlayers, Mylar and Melinex polyester films, Kalrez perfluoroelastomer, and Viton fluoroelastomers. The segment serves the automotive OEM and associated after-market industries, as well as electrical, electronics, packaging, construction, oil, photovoltaics, aerospace, chemical processing, and consumer durable goods industries.

The safety and protection segment serves a number of markets, ranging from construction, transportation, communications, industrial chemicals, oil, gas, and manufacturing to defense, homeland security, and safety consulting. It offers products and services in the area of personal and life protection. Brands offered include DuPont Kevlar, Nomex aramid products, Tyvek non-woven sheet structures, and Corian solid surface materials. Additionally, it offers safety consulting services and selling training products.

The pharmaceuticals segment receives net proceeds and royalties from licensing arrangements for Cozaar and Hyzaar antihypertensive drugs, which are manufactured and distributed by Merck Sharp & Dohme Corp, a subsidiary of Merck & Co.

The others businesses of DuPont includes operations of applied biosciences and non-aligned businesses. Applied biosciences use biology, chemistry, materials science, and engineering in an integrated fashion to address technology needs including crop-based products and technologies. Non-aligned businesses include activities related to Benlate fungicide business, other business of textiles, and royalty fees.

Key Metrics

The company recorded revenues of \$32,347 million in the fiscal year ending December 2010, an increase of 18.8% compared to fiscal 2009. Its net income was \$3,031 million in fiscal 2010, compared to a net income of \$1,755 million in the preceding year.

Table 12: E. I. duPont de Nemours & Company: key financials (\$)

\$ million	2006	2007	2008	2009	2010
Revenues	27,421.0	30,446.0	31,796.0	27,218.0	32,347.0
Net income (loss)	3,148.0	2,988.0	2,007.0	1,755.0	3,031.0
Total assets	31,777.0	34,131.0	36,209.0	38,185.0	40,410.0
Total liabilities	22,355.0	22,553.0	28,657.0	30,534.0	30,667.0
Employees	59,000	60,000	60,000	60,000	60,000

SOURCE: COMPANY FILINGS MARKETLINE

Table 13: E. I. duPont de Nemours & Company: key financial ratios

Ratio	2006	2007	2008	2009	2010
Profit margin	11.5%	9.8%	6.3%	6.4%	9.4%
Revenue growth	2.9%	11.0%	4.4%	(14.4%)	18.8%
Asset growth	(4.5%)	7.4%	6.1%	5.5%	5.8%
Liabilities growth	(8.1%)	0.9%	27.1%	6.5%	0.4%
Debt/asset ratio	70.3%	66.1%	79.1%	80.0%	75.9%
Return on assets	9.7%	9.1%	5.7%	4.7%	7.7%
Revenue per employee	\$464,763	\$507,433	\$529,933	\$453,633	\$539,117
Profit per employee	\$53,356	\$49,800	\$33,450	\$29,250	\$50,517

SOURCE: COMPANY FILINGS MARKETLINE

Figure 15: E. I. duPont de Nemours & Company: revenues & profitability

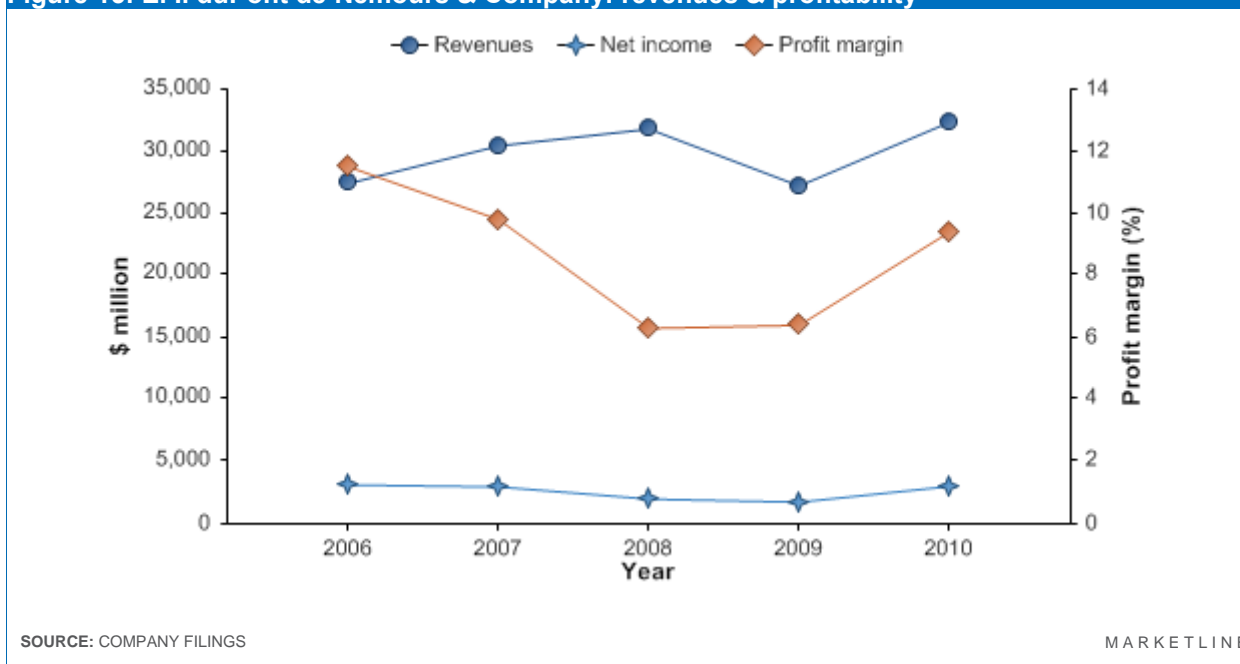
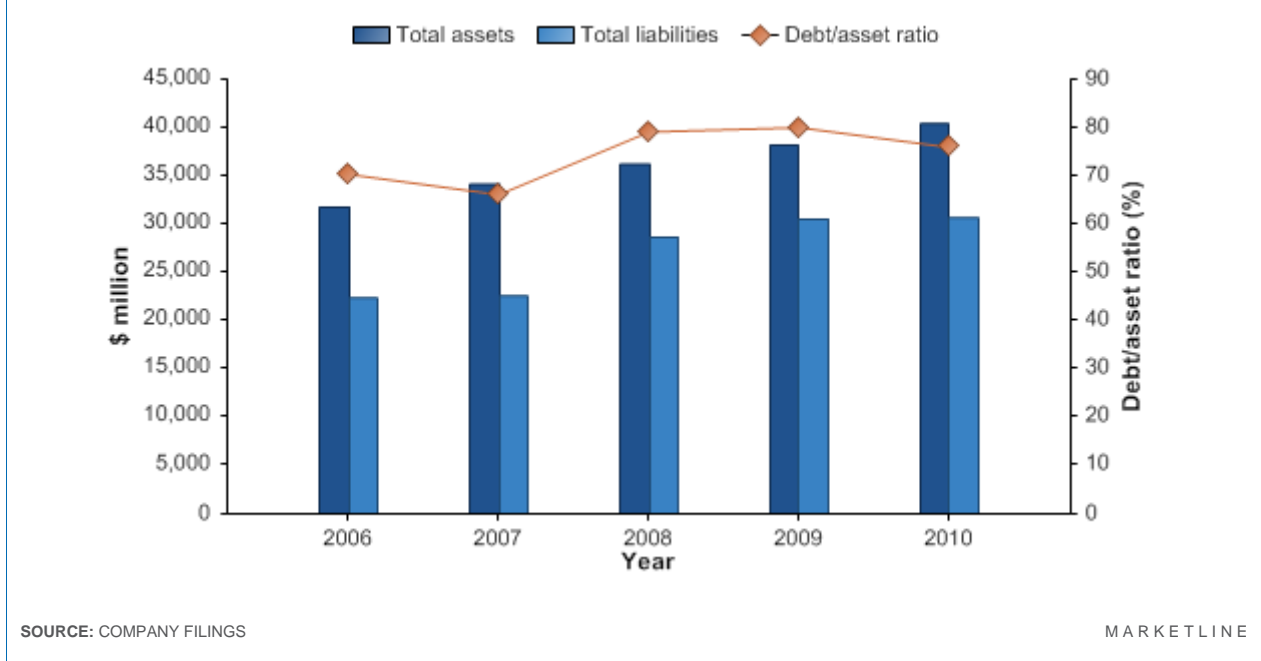


Figure 16: E. I. duPont de Nemours & Company: assets & liabilities



Koch Industries, Inc.

Table 14: Koch Industries, Inc.: key facts

Head office:	Koch Industries, Inc., Wichita, Kansas 67201 2256, USA
Telephone:	1 316 828 5500
Fax:	1 316 828 5739
Website:	www.kochind.com
Financial year-end:	December

SOURCE: COMPANY WEBSITE MARKETLINE

Koch Industries owns a group of companies engaged in trading, operations, and investment worldwide. Through its subsidiaries, the company is engaged in industries such as refining and chemicals, process and pollution control equipment and technologies, minerals and fertilizers, polymers and fibers, commodity and financial trading and services, and forest and consumer products. The company operates in about 60 countries.

Koch Industries operates in the following eight segments: polymers and fibers, minerals, process and pollution control equipment and technologies, refining and chemicals, fertilizers, forest and consumer products, commodity and trading services and ranching.

Koch Industries' fibers and polymers business is operated by INVISTA and its subsidiaries. Through its subsidiaries, INVISTA produces and markets integrated fibers and polymers in 20 countries. INVISTA owns more than 700 unique pending or granted US patents. INVISTA comprises four businesses: apparel, intermediates, performance surfaces and materials, and polymer and resins.

The minerals business is carried out by Koch Minerals, Koch Carbon, Koch Exploration Company and their respective affiliates. Koch Minerals and its affiliates provide handling services for dry-bulk commodities. They market and trade more than 40 million metric tons of products annually. Koch Carbon and its affiliates globally trade and transport petroleum coke, coal, cement, sulfur, and other related commodities through a network of company owned or operated bulk import/export terminals in North America, South America, and Europe. Koch Exploration Company and its affiliates are engaged in oil and natural gas production. These companies acquire, develop, and trade properties in the US, Canada, and Brazil that produce crude oil, conventional oil, unconventional gas (coalbed methane, tight sandstones, and fractured shales), and conventional natural gas.

The process and pollution control equipment and technologies segment of Koch Industries is operated by the subsidiaries of Koch Chemical Technology Group (KCT Group). The KCT Group designs, manufactures, sells, installs, and services process and pollution control equipment for industries and municipalities worldwide. Its subsidiaries include: Koch-Glitsch, Koch Membrane Systems, Koch Heat Transfer Company, John Zink Company, Optimized Process Designs, Iris Power and Koch Knight.

Koch-Glitsch and its affiliates supply mass transfer and mist elimination equipment, as well as other process technologies and related services. Koch Membrane Systems develops and manufactures membrane separation systems for a variety of applications worldwide, including membranes for microfiltration, ultrafiltration, nanofiltration, and reverse osmosis. The company also provides submerged membranes used in industrial and municipal wastewater treatment. Koch Heat Transfer Company and its affiliates design and fabricate proprietary and custom heat exchangers for a global customer base.

John Zink Company and its affiliates supply ultra-low emission process burners, boiler burners, duct burners, flares, and thermal oxidizers. The company also supplies flare gas/vapor recovery and vapor combustor systems. Optimized Process Designs provides consulting, engineering, design, procurement, fabrication, and construction services for the natural gas and gas processing industries worldwide. Koch Knight and its affiliates provide acid proof solutions. The companies offer construction and engineering services through a global network of manufacturing and outsourcing facilities.

Koch Industries engages in the refining and chemicals business through its subsidiary Flint Hills Resources, which focuses on petroleum refining, chemicals and base oil production, crude oil supply and trading, and wholesale marketing and trading of fuel oil, base oils, gasoline, petrochemicals, asphalt, and other products.

The company has a refining capacity of more than 800,000 barrels per day. Its facilities produce energy products such as aromatics, olefins, base oils, asphalt, motor oil, polymers, and intermediate chemicals. Flint Hills Resources also produces an array of petrochemicals required to manufacture thousands of items used daily.

The refining and chemicals segment also includes the operations of Koch Pipeline Company (KPC). KPC primarily operates Koch Industries' pipeline business. KPC owns and operates about 4,000 miles of pipelines that transport refined petroleum products, natural gas liquids, and chemicals. Koch Alaska Pipeline Company owns an approximate 3% interest in the Trans Alaska Pipeline System. Another Koch company has a 28% interest in Colonial Pipeline Company, owner and operator of the world's largest-volume refined products pipeline.

Koch Industries' fertilizer business is carried out by Koch Fertilizer and its affiliates. Koch Fertilizer and its affiliates own interests in nitrogen fertilizer plants in the US, Canada, Trinidad and Tobago, and Venezuela. The companies cover global demand through terminals in North America and Europe. Koch Fertilizer and its affiliates, including Koch Nitrogen Company and Koch Fertilizer Canada, manufacture, market, and distribute more than 9 million tons of nitrogen products annually.

The forest and consumer products business is operated by its subsidiary Georgia-Pacific, which is engaged in the manufacture and marketing of tissue, packaging, paper, building products, related chemicals, fluff, filters, and market pulp. The company and its affiliates have nearly 300 manufacturing facilities across North America, South America, and Europe, ranging from large pulp, paper, and tissue operations to gypsum plants, box plants, and building products operations. The company also markets dispensing systems and hygienic products including paper towels, napkins, and liquid soap used in commercial settings such as restaurants, schools, and hospitals.

Koch Industries' commodity and financial trading and services comprises of Koch Supply & Trading (KS&T) and other Koch companies. These companies provide trading and risk management services that apply to various commodities such as crude oil, refined petroleum products, natural gas and gas liquids, gas, power and emissions, steel, industrial metals, energy, and other commodities and financial instruments. In addition, a Koch Supply & Trading company operates an 80,000 barrel-per-day refinery in Rotterdam, the Netherlands.

The ranching business of Koch Industries is carried out by Matador Cattle Company (MCC). MCC operates three ranches: Beaverhead near Yellowstone National Park in Montana, Spring Creek in the scenic Flint Hills of Kansas, and the Matador Ranch in Texas. The ranches total about 425,000 acres and have about 15,000 head of cattle.

Key Metrics

Being a privately-held company, Koch Industries is not obliged to disclose any financial information.

MACROECONOMIC INDICATORS

Country Data

Table 15: United States size of population (million), 2006–10

Year	Population (million)	% Growth
2006	298.4	1.0%
2007	301.2	1.0%
2008	304.1	1.0%
2009	306.8	0.9%
2010	309.3	0.8%

SOURCE: MARKETLINE MARKETLINE

Table 16: United States gdp (constant 2000 prices, \$ billion), 2006–10

Year	Constant 2000 Prices, \$ billion	% Growth
2006	11,509.5	2.7%
2007	11,733.0	1.9%
2008	11,697.8	(0.3%)
2009	11,288.4	(3.5%)
2010	11,627.0	3.0%

SOURCE: MARKETLINE MARKETLINE

Table 17: United States gdp (current prices, \$ billion), 2006–10

Year	Current Prices, \$ billion	% Growth
2006	13,471.9	6.0%
2007	14,124.2	4.8%
2008	14,619.9	3.5%
2009	14,060.8	(3.8%)
2010	14,721.0	4.7%

SOURCE: MARKETLINE MARKETLINE

Table 18: United States inflation, 2006–10

Year	Inflation Rate (%)
2006	3.2%
2007	2.8%
2008	3.8%
2009	(0.3%)
2010	1.6%

SOURCE: MARKETLINE

MARKETLINE

Table 19: United States consumer price index (absolute), 2006–10

Year	Consumer Price Index (2000 = 100)
2006	117.0
2007	120.4
2008	125.0
2009	124.6
2010	126.6

SOURCE: MARKETLINE

MARKETLINE

Table 20: United States exchange rate, 2006–10

Year	Exchange rate (€/€)
2006	1.2547
2007	1.3683
2008	1.4633
2009	1.3905
2010	1.3279

SOURCE: MARKETLINE

MARKETLINE

APPENDIX

Methodology

MarketLine Industry Profiles draw on extensive primary and secondary research, all aggregated, analyzed, cross-checked and presented in a consistent and accessible style.

Review of in-house databases – Created using 250,000+ industry interviews and consumer surveys and supported by analysis from industry experts using highly complex modeling & forecasting tools, MarketLine's in-house databases provide the foundation for all related industry profiles

Preparatory research – We also maintain extensive in-house databases of news, analyst commentary, company profiles and macroeconomic & demographic information, which enable our researchers to build an accurate market overview

Definitions – Market definitions are standardized to allow comparison from country to country. The parameters of each definition are carefully reviewed at the start of the research process to ensure they match the requirements of both the market and our clients

Extensive secondary research activities ensure we are always fully up-to-date with the latest industry events and trends

MarketLine aggregates and analyzes a number of secondary information sources, including:

- National/Governmental statistics
- International data (official international sources)
- National and International trade associations
- Broker and analyst reports
- Company Annual Reports
- Business information libraries and databases

Modeling & forecasting tools – MarketLine has developed powerful tools that allow quantitative and qualitative data to be combined with related macroeconomic and demographic drivers to create market models and forecasts, which can then be refined according to specific competitive, regulatory and demand-related factors

Continuous quality control ensures that our processes and profiles remain focused, accurate and up-to-date

Industry associations

The International Council of Chemical Associations

ICCA c/o Cefic, Avenue E Van Nieuwenhuysse 4, box 1, B-1160 Brussels, Belgium

Tel.: 32 2 676 74 15

www.icca-chem.org

Related MarketLine research

Industry Profile

Global Chemicals

Chemicals in Europe

Chemicals in Asia-Pacific

Chemicals in Mexico

Chemicals in Brazil

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